

**FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION***All sections must be addressed, or the application will be considered invalid***I. APPLICANT INFORMATION**A. Applicant Name: Trout UnlimitedMailing Address: 312 N. Higgins Ave, Suite 200City: Missoula State: MT Zip: 59802Telephone: 406-546-5680 E-mail: casey.hackathorn@tu.org

B. Contact Person (if different than applicant): _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ E-mail: _____

C. Landowner and/or Lessee Name (if different than applicant): Tom CorbettMailing Address: 6806 S Ben Burr RdCity: Spokane State: WA Zip: 59802Telephone: 509-994-5872 E-mail: Tcorbett27@msn.com**II. PROJECT INFORMATION**A. Project Name: Flint Creek Riparian RestorationRiver, stream, or lake: Flint CreekLocation: Township: 10N Range: 13W Section: 35 and 36Latitude: 46.58243 Longitude: -113.18688 *within project (decimal degrees)*County: Granite

B. Purpose of Project:

The purpose of the project is to improve and protect riparian and instream habitat on a mile of Flint Creek near Hall, MT that has been impaired by past land use practices to improve fish populations in Flint Creek and the Clark Fork River.

C. Brief Project Description (attach additional information to end of application):

The Flint Creek Riparian Restoration Project will protect, restore and enhance the riparian corridor on approximately one mile of Flint Creek on private land near Hall, MT by improving riparian vegetation, restoring instream habitat and reducing sediment loading to Flint Creek. This project is part of a larger effort in the Flint Creek watershed with multiple partners including the Montana Natural Resource Damage Program (NRDP) and Montana Fish, Wildlife and Parks (FWP) to restore fish populations in Flint Creek and the Upper Clark Fork River by engaging private landowners in projects that improve and reconnect habitat, restore streamflow, and improve water quality.

Multiple riparian habitat assessments have been completed on Flint Creek including the *Riparian Habitat Assessment for Flint Creek and Boulder Creek* by Great West Engineering (GWE) for NRDP in 2015 and a reach-focused *Flint Creek Assessment and Conceptual Design Report* completed by River Design Group (RDG) for NRDP in 2017. The GWE report identifies the reach targeted by this project as a high priority for riparian restoration. The RDG report details both the vegetative and geomorphic impairments in the reach as well as concepts to restore them. Those concepts have been developed into the Flint Creek Riparian Restoration Project including the following three approaches for restoring natural processes to improve habitat and reduce sedimentation:

1. Grazing Management- the project will implement grazing management recommendations prepared by the Blackfoot Challenge in partnership with NRDP and the landowners in 2017. The existing interior fencing system will be replaced with new fencing to support a rotational grazing and stock watering in two pastures as well as a generous riparian/wetland buffer to improve riparian vegetation and wildlife habitat.
2. Active Revegetation- the project will implement a revegetation plan prepared by River Design Group that includes planting of containerized native woody plants, exclusion fencing and seeding.
3. Streambank Restoration- the project will implement a restoration design prepared by RDG to restore eroding streambanks, improve riparian vegetation, improve fisheries habitat, and reduce bank erosion.

D. Length of stream or size of lake that will be treated (project extent): One mile

Length/size of impact, if larger than project extent (e.g. stream miles opened): _____

E. Project Budget:

Grant Request (Dollars): \$ 29,100

Matching Dollars: \$ **33,300**

Matching In-Kind Services: \$ _____

Total Project Cost: \$ \$262,835*

*Not all sources of funding are included as matching funds in this FFIP proposal. The remaining project budget will be covered with secured funding and in-kind support from TU, WestSlope Chapter TU, DEQ 319, and MT NRDP.

F. **Attach** itemized (line item) budget – see *budget template*

- Attach** specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support and fish biologist support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete a *supplemental questionnaire* (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).
- H. **Attach** land management & maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS (attach additional information to end of application):

- A. What species of fish will benefit from this project?

Brown trout, bull trout, westslope cutthroat trout, rainbow trout, mountain whitefish and non-game species

- B. How will the project protect or enhance wild fish habitat?

The project will improve shade and overhead cover by providing the landowners with infrastructure to exclude cattle from grazing the riparian, flood prone and wetland areas of the property; improve habitat complexity and pool depth instream through installation of large wood structures; and reduce sedimentation, improve shading/overhead cover, and provide a future source of large wood through revegetation and bank treatments.

- C. Will the project improve fish populations and/or fishing? To what extent?

Yes, the project is intended to improve fish populations and quality of angling by improving foraging, migration and overwintering habitat for native species and spawning and rearing habitat for non-native sportfish which should serve to increase survival and population densities over time. The project is located in a high-priority migration corridor for westslope cutthroat trout and bull trout between the Clark Fork River and they quality spawning habitat in Boulder Creek.

The project is also to provide a demonstration project for neighboring ranches to assist with the long-term goal of implementing similar habitat restoration and expanding fisheries benefits to the reach scale.

- D. Will the project increase public fishing opportunity for wild fish and, if so, how?

While the project is located on private land, Flint Creek is accessible by wade anglers by stream access law from an adjacent public bridge right-of-way. In addition, improvements to fish populations as a result of the project may improve angling opportunity on the rest of Flint Creek and the nearby Clark Fork River. FWP otolith microchemistry and radio telemetry studies have shown the importance of the Flint Creek watershed for recruitment to the Clark Fork River.

- E. The project agreement includes a 20-year maintenance commitment. Please discuss your ability to meet this commitment.

We have been working closely with the landowners to develop this project for several years. Their number one goal is maintaining quality wildlife habitat on their property and they are committed to maintaining all improvements.

- F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?

Habitat degradation in the area has largely been the result of past agricultural practices. In particular, the impacts of cattle grazing include reduced woody riparian vegetation, increased erosion, increased width/depth ratios, and decreased pool frequency and depths. The project seeks to correct these impairments with a cost-effective combination of passive and active approaches that include removing grazing pressure, restoring vegetation, and active treatment of 1,200' of highly impaired stream banks.

- G. What public benefits will be realized from this project?

The public benefits of this project will be increased water quality and improvements to both terrestrial and aquatic wildlife habitat.

- H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No.

- I. Will the project result in the development of commercial recreational use on the site? (explain):

No. The landowners lease grazing rights on the property and other than family enjoyment have no plans for recreational development.

- J. Is this project associated with the reclamation of past mining activity?

No.

Each approved project applicant must enter into a written agreement with Montana Fish, Wildlife & Parks specifying terms and duration of the project. The applicant must obtain all applicable permits prior to project construction. A competitive bid process must be followed when using State funds.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: _____



Date: 5/28/2020

Sponsor (if applicable): _____

Submittal: **Applications must be *signed and received before December 1 and June 1* of each year to be considered for the subsequent funding period.** Late or incomplete applications will be rejected.

Mail to: Montana FWP Fish Management Bureau PO Box 200701 Helena, MT 59620-0701	Email: Michelle McGree mmcgree@mt.gov (electronic submissions must be signed) For files over 10MB, use https://transfer.mt.gov
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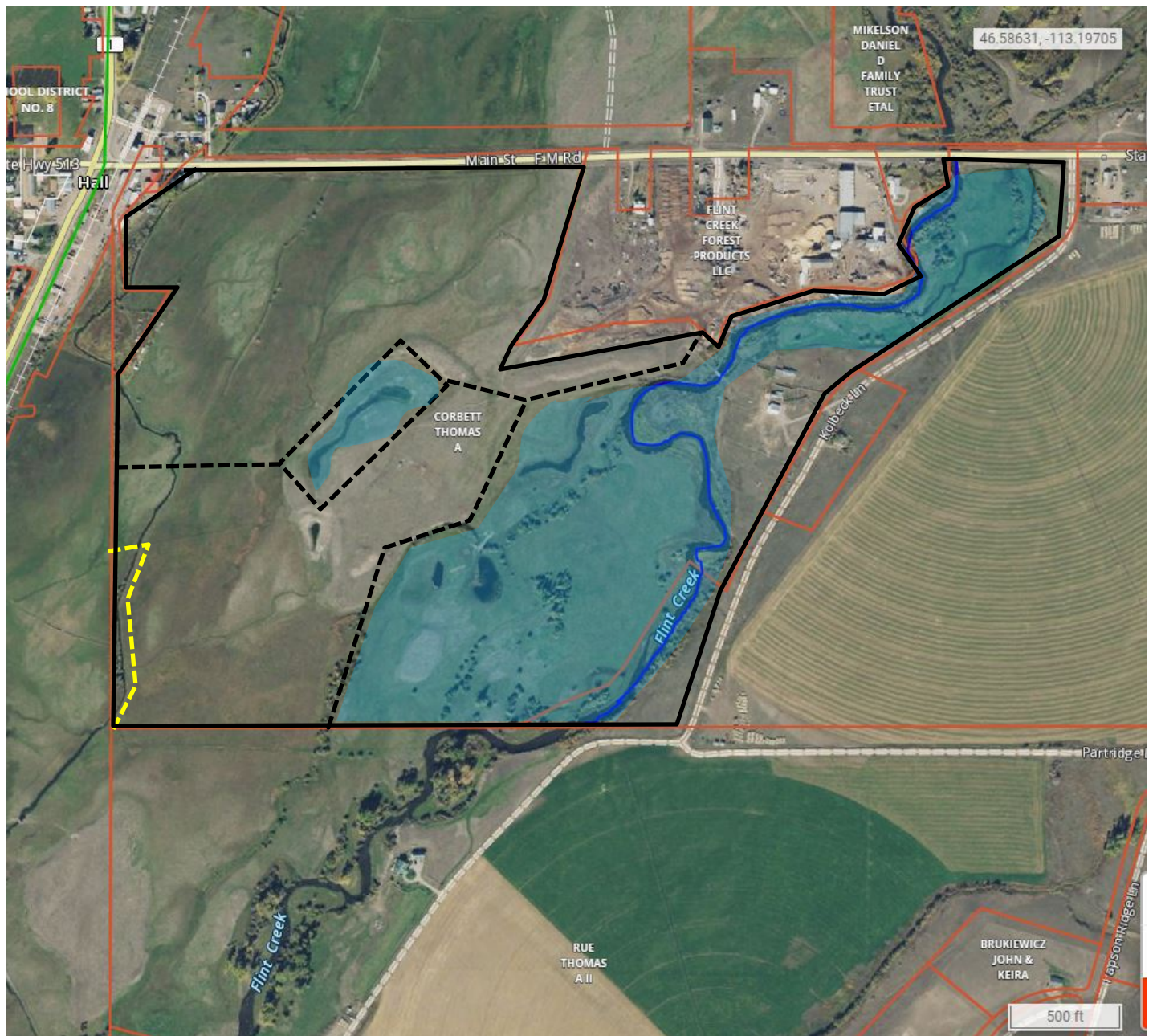
Applications may be rejected if this form is modified.






WORK ITEMS (itemize by category)	QTY	UNIT	COST/ UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES*	IN-KIND CASH*	TOTAL *
<u>Personnel</u>								
Survey	1	LS	\$ 11,174.00	\$ 11,174.00				\$ -
Design	1	LS	\$ 17,317.00	\$ 17,317.00				\$ -
Permitting	1	LS	\$ 10,240.00	\$ 10,240.00				\$ -
Oversight	1	LS	\$ 19,044.00	\$ 19,044.00				\$ -
Monitoring	1	LS	\$ 4,000.00	\$ 4,000.00				\$ -
			Sub-Total	\$ 61,775.00	\$ -	\$ -	\$ -	\$ -
<u>Construction Materials</u>								
Furnish logs and brush for Streambank Structures	30	loads	\$ 500.00	\$ 15,000.00				\$ -
Furnish willow cuttings	12000	each	\$ 1.00	\$ 12,000.00				\$ -
streambank fill	698	cubic yards	\$ 20.00	\$ 13,960.00				\$ -
Sod salvage and placement	2200	square feet	\$ 2.00	\$ 4,400.00				\$ -
4 strand barbed wire fencing	5200	linear feet	\$ 1.50	\$ 7,800.00				\$ -
2 strand electric fencing	1000	linear feet	\$ 1.25	\$ 1,250.00				\$ -
Furnish and install solar energizer	1	each	\$ 200.00	\$ 200.00				\$ -
Furnish and install gates	4	each	\$ 400.00	\$ 1,600.00				\$ -
containerized plants and weed mats	1444	plants	\$ 25.00	\$ 36,100.00	\$ 14,100.00		\$ 14,100.00	\$ 28,200.00
Furnish and install wildlife exclosures	4000	linear feet	\$ 8.00	\$ 32,000.00	\$ 14,220.00		\$ 14,220.00	\$ 28,440.00
Seeding	1.8	acres	\$ 350.00	\$ 630.00				\$ -
			Sub-Total	\$ 124,940.00	\$ 28,320.00	\$ -	\$ 28,320.00	\$ 56,640.00
<u>Equipment</u>								
Site prep, river access, BMPs, reclamation	24	hours	\$ 240.00	\$ 5,760.00				\$ -
Install large wood structures	7	structures	\$ 2,200.00	\$ 15,400.00				\$ -
structures	1200	linear feet	\$ 35.00	\$ 42,000.00				\$ -
Reveg site work	8	hours	\$ 195.00	\$ 1,560.00	\$ 780.00		\$ 780.00	\$ 1,560.00
Old fence removal	1	LS	\$ 4,200.00	\$ 4,200.00			\$ 4,200.00	\$ 4,200.00
			Sub-Total	\$ 68,920.00	\$ 780.00	\$ -	\$ 4,980.00	\$ 5,760.00
<u>Mobilization</u>								
Mobilization	1	LS	\$ 7,200.00	\$ 7,200.00				\$ -
			Sub-Total	\$ 7,200.00	\$ -	\$ -	\$ -	\$ -
TOTALS				\$ 262,835.00	\$ 29,100.00	\$ -	\$ 33,300.00	\$ 62,400.00

*The remaining project budget is covered with secured funding and in-kind support from TU, WSCTU, DEQ 319, and MT NRDP that are not used as matching funds for this proposal.

MATCHING CONTRIBUTIONS

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Verified?
MT Dept. of Environmental Quality	\$ -	\$ 15,000	\$ 15,000	Y
MT Natural Resource Damage Program	\$ -	\$ 14,100	\$ 14,100	Y
Landowner	\$ -	\$ 4,200	\$ 4,200	Y



-  Treatment Reach – Flint Creek
-  Riparian and Wetland Habitat
-  Property Boundary (Fenced)
-  Proposed Barbed Wire Fencing
-  Proposed Electrical Fencing



Site Revegetation Conceptual Design

RDG is developing design plans and specifications for early June 2020 completion.

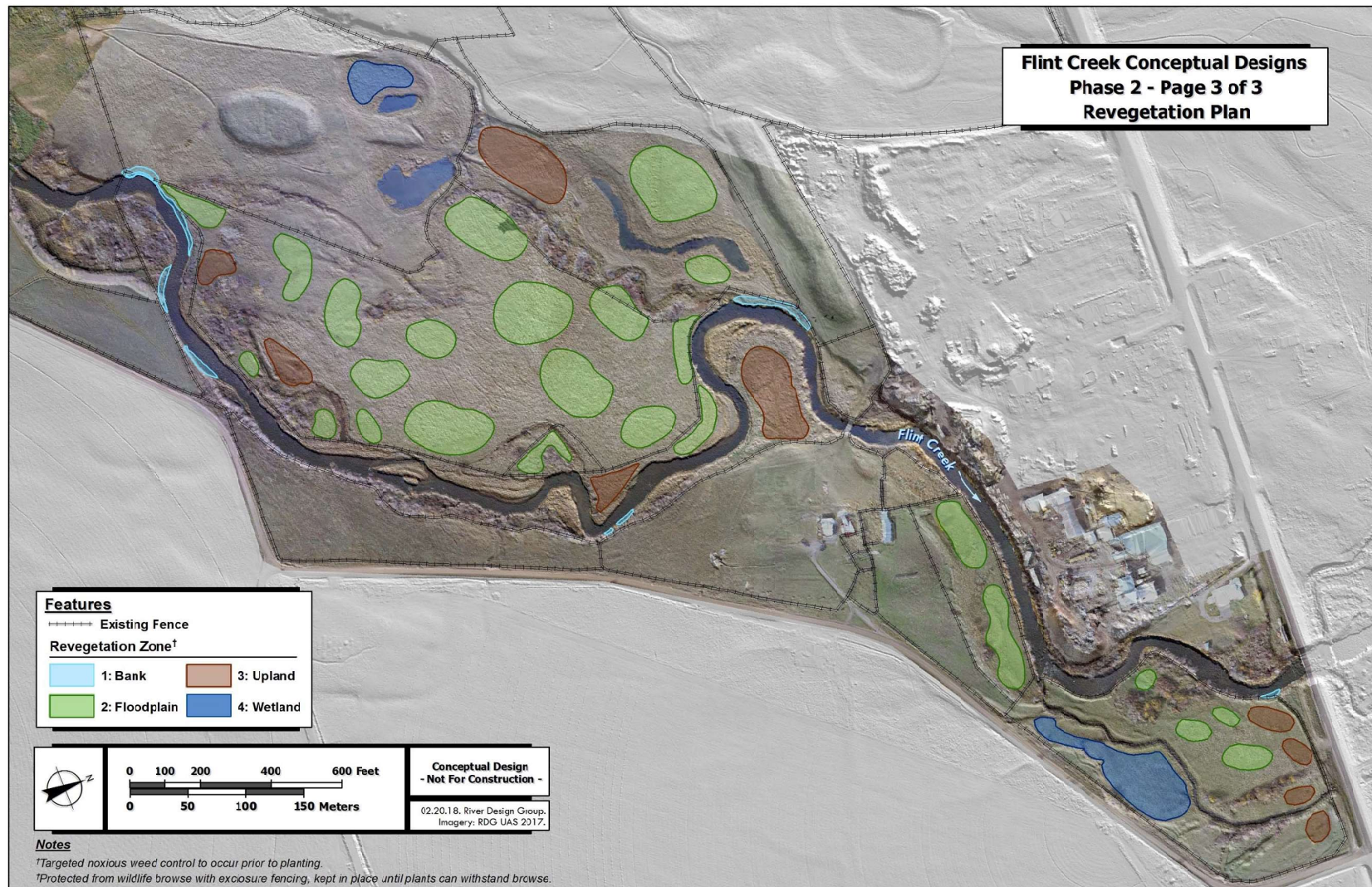
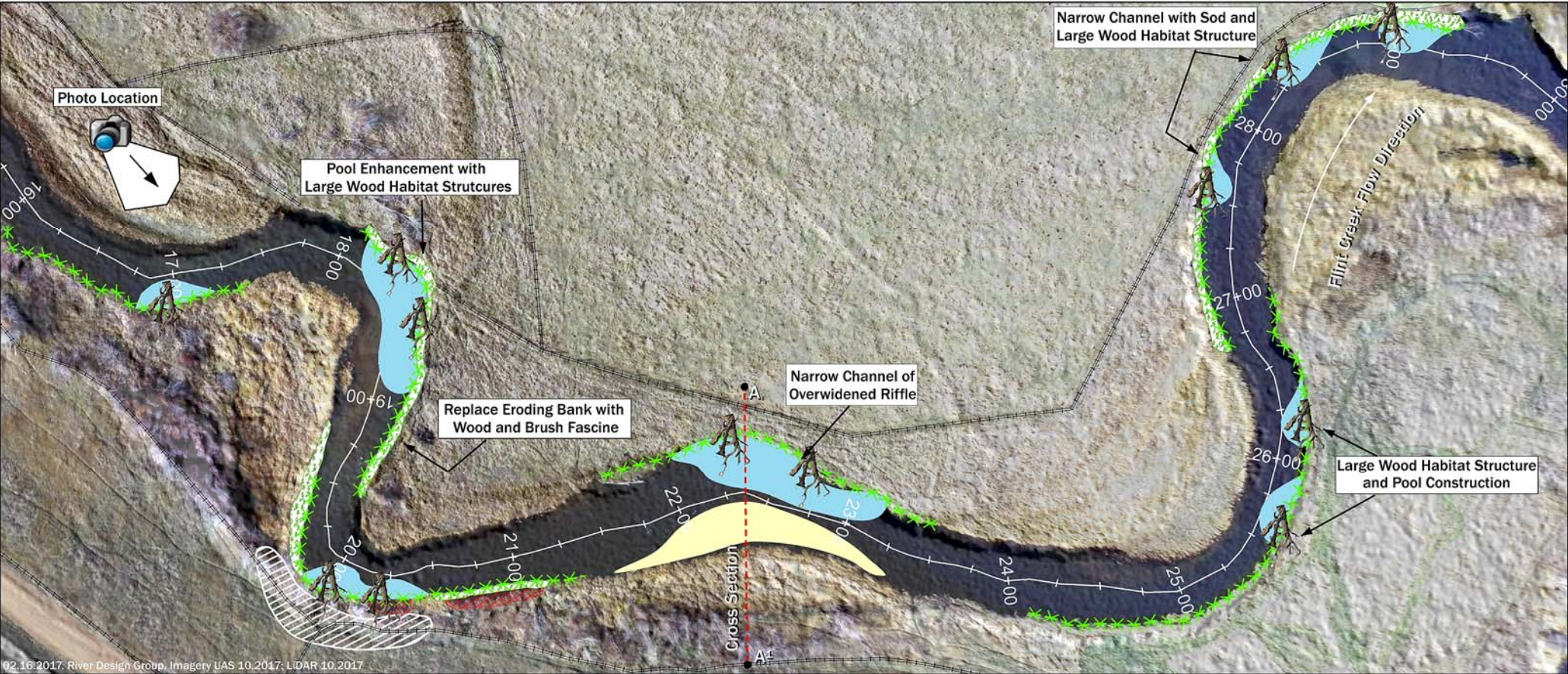
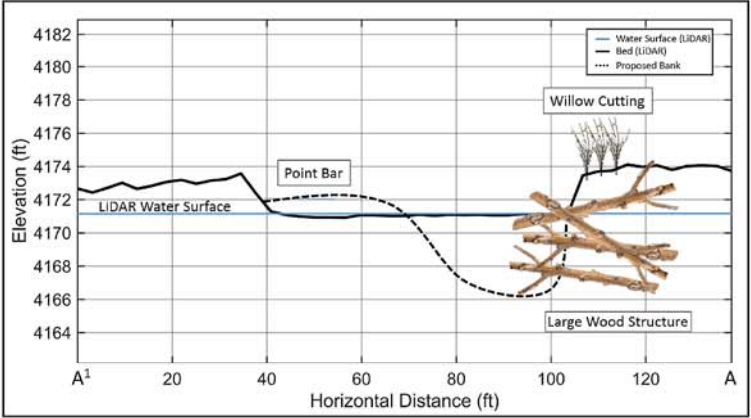
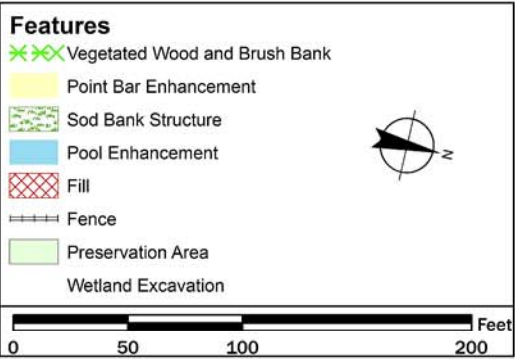


Figure 7. Conceptual revegetation plan for the lower Flint Creek project area.

RDG is developing construction plans and final design



02.16.2017; River Design Group, Imagery UAS 10.2017; LIDAR 10.2017



Concept Level Project Cost Estimate**Flint Creek - Corbett-Downs Property near Hall, MT****Plan: Streambank Restoration**

	Construction Cost Items	Quantity	Units	Unit Cost	Cost
1	Mobilization and Demobilization	1	Lump Sum	\$ 7,200	\$ 7,200
2	Site Prep, River Access, BMPs, Reclamation	24	Hours	\$ 240	\$ 5,760
3	Furnish Logs and Brush for Streambank Structures	289	Trees	\$ 500	
4	Furnish Willow Cuttings for Streambank Structures	12,000	Cuttings	\$ 1.00	
5	Furnish Pit Run for Streambank Fill	698	Cubic Yards	\$ 20	\$ 13,950
6	Sod Salvage and Placement	2,200	Square Feet	\$ 2.00	\$ 4,400
7	Install Large Wood Structures	7	Structures	\$ 2,200	\$ 15,400
8	Install Vegetated Brush Bank Structures	1,200	Linear Feet	\$ 35	\$ 42,000
			CONSTRUCTION SUBTOTAL		\$ 88,710

	Other Costs		
1	Design		\$ 15,000
2	Construction Oversight		\$ 15,000
3	Monitoring		
4	Contingency		
		GRAND TOTAL	\$ 118,710

Assumptions for Construction Cost Estimates

1. Costs are based on restoration concepts dated July 2017.
2. Mobilization and demobilization assumed to be \$6/mile per piece of equipment
3. Assumed excavator rate of \$185 per hour loader rate of \$185/hr skid steer rate of \$80/hr and labor rate of \$70/hr.
4. Wood procurement not included. Estimated cost for wood is \$144,500.
5. Willow cutting procurement not included. Estimated cost for cuttings is \$12,000.
6. Structure installation costs based on past project data.
7. Design, oversight and monitoring costs based on past project data.
8. Estimate in 2019 dollars. Escalation may apply for future costs.

Concept Level Project Cost Estimate**Flint Creek - Corbett-Downs Property near Hall, MT****Plan: Revegetation**

	Construction Cost Items	Quantity	Units	Unit Cost	Cost
1	Mobilization and Demobilization	1	Lump Sum	\$ 3,600	\$ 3,600
2	Site Prep, Access, Reclamation	8	Hours	\$ 195	\$ 1,560
3	Furnish and Install Containerized Plants and Weed Mats	1,300	Plants	\$ 25	\$ 32,500
4	Furnish and Install Wildlife Exclosure Fencing	4,000	Linear Feet	\$ 8	\$ 32,000
5	Seeding	1.8	Acres	\$ 350	\$ 630
			CONSTRUCTION SUBTOTAL	\$	70,290

	Other Costs		
1	Design		\$ 5,000
2	Construction Oversight		\$ 5,000
3	Monitoring		
4	Contingency		
		GRAND TOTAL	\$ 80,290

Assumptions for Construction Cost Estimates

1. Costs are based on restoration concepts dated July 2017.
2. Mobilization and demobilization assumed to be \$5/mile per piece of equipment
3. Planting and fencing costs based on past project data.
4. Estimate in 2019 dollars. Escalation may apply for future costs.

May 29, 2020

Michelle McGree
Montana Fish Wildlife and Parks
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701

Dear Ms. McGree,

Please accept this letter supporting Trout Unlimited's Flint Creek Riparian Restoration Project proposal. As landowners, we are excited to work with your program to improve wildlife and fisheries habitat on our property while improving water quality downstream. We have been working with Trout Unlimited, the Montana Natural Resource Damage Program and other partners for the last few years to plan for restoration of Flint Creek through our property and improve our grazing management. We are looking forward to seeing these planning efforts become a reality soon.

Thank you for your consideration of this proposal and we look forward to working with you on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Corbett and Barrett Downs". The signature is fluid and cursive, with the first name "Tom" being the most prominent.

Tom Corbett and Barrett Downs



To whom it may concern:

Montana Fish, Wildlife and Parks considers Flint Creek a high priority fishery. It serves as both a recreational fishing destination and as a tributary which produces juvenile recruitment for the Clark Fork River. Flint Creek receives moderate angling pressure and, in this reach, generally maintains approximately 3-500 catchable fish per mile. These densities are high enough to provide very high quality angling opportunities for this size of stream. Flint Creek has also been found to provide a significant number of juvenile trout to the Clark Fork River via a tributary recruitment study completed by Montana Fish, Wildlife and Parks in 2016.

The proposed restoration work on the Corbett/Barrett properties appears to address important limiting factors to this reach. Livestock grazing and channel alterations have negatively impacted fish habitat in this reach by simplifying the habitat and removing natural stream channel function. Revegetation of adjacent banks and floodplain should significantly improve fish habitat via bank stabilization and temperature reduction. Developing a grazing management plan will also assist in maintaining quality riparian vegetation into the future. Bank stabilization using proper hydrologic techniques will likely aid in developing additional fish habitat as well as developing stable habitats that can be successfully revegetated. This revegetation is the key to long term stability and health of this reach. Overall, Montana Fish, Wildlife and Parks feels this is a good project that will benefit the fisheries in an important drainage. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Liermann".

Brad Liermann, Fisheries Biologist
Montana Fish, Wildlife and Parks
406-825-5225



May 27, 2020

Michelle McGree
Montana FWP
Fish Management Bureau
PO Box 200701
Helena, MT 59620-0701

Dear Ms. McGree,

The WestSlope Chapter Trout Unlimited is a local non-profit conservation group focused on conserving, protecting, and restoring cold water fisheries in the Missoula area. We'd like to offer this letter of support for Trout Unlimited's Flint Creek Riparian Restoration Project proposal for 319 Nonpoint Source Project funding. Our membership, comprised of over 900 passionate anglers, actively enjoys the fisheries supported by Flint Creek and the Clark Fork River and we are excited by the opportunity to partner on a volunteer project that will benefit these resources. Our volunteer chapter has partnered with TU staff on several successful watershed restoration efforts in western Montana including Ninemile Creek, Rattlesnake Creek, Marshall Creek and Rock Creek. We are excited to expand this effort into the Flint Creek watershed with this project.

Thank you for your consideration and we look forward to working to making this project a success.

Best regards,

A handwritten signature in blue ink, appearing to read "Mark Kuipers".

Mark Kuipers, President



P.O. BOX 7792 MISSOULA, MT 59807 (406) 241-3121
www.hellgatehuntersandanglers.org

Michelle McGree
Montana FWP
Fish Management Bureau
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701

Dear Ms. McGree,

Hellgate Hunters & Anglers would like to express our support for Trout Unlimited's Flint Creek Riparian Restoration Project. HHA is excited to partner with TU to engage our members in a stream restoration project on Flint Creek. Flint Creek is home to a valued local fishery and we wholeheartedly support project work to improve water quality and habitat in the watershed.

We look forward to working with TU and FWP to make this project a success. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Adam Shaw", with a long horizontal line extending to the right.

Adam Shaw
President
Hellgate Hunters & Anglers



United States Department of the Interior

Fish and Wildlife Service

Montana Ecological Services Office

585 Shepard Way, Suite 1

Helena, Montana 59601-6287

Phone: (406) 449-5225, Fax: (406) 449-5339



In Reply refer to:

File: M.38 Department of Environmental Quality, Montana.

Flint Creek Riparian Improvement Project

October 31, 2019

Eric Trum
Water Quality Planning Bureau
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

Dear Mr. Trum

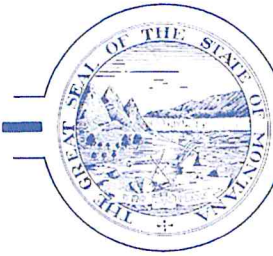
The U.S. Fish and Wildlife Service (Service) reviewed the proposed 319 Grant Application for the Flint Creek Riparian Restoration project and provides the following comments. The segment of Flint Creek affected by the proposed action is essential for the recovery of bull trout (*Salvelinus confluentus*) because it provides for movement between spawning areas (Boulder Creek) and overwintering habitats (Clark Fork River). The Bull Trout Recovery Plan and Columbia Headwaters Recovery Unit Implementation Plan for Bull Trout describes three primary threats to bull trout recovery (Habitat, Demographic, and Nonnatives). The proposed action will begin to address one of the primary threats to bull trout recovery: habitat. The habitat threats in Flint Creek include riparian management and water quality. The proposed actions will improve water quality and riparian conditions. Improving habitat conditions along Flint Creek is an important first step for providing a functional migratory corridor. Therefore, the Service fully supports your efforts.

We appreciate your efforts to recover threatened and endangered species. If you have questions or comments related to this letter, please contact Dan Brewer at dan_brewer@fws.gov or (406) 329-3951.

Sincerely,

for Jodi L. Bush
Office Supervisor

DEPARTMENT OF JUSTICE
NATURAL RESOURCE DAMAGE PROGRAM



TIM FOX
ATTORNEY GENERAL

1720 9TH AVENUE

STATE OF MONTANA

(406) 444-0205 (OFFICE)
(406) 444-0236 (FAX)

PO BOX 201425
HELENA, MONTANA 59620-1425

Montana Department of Environmental Quality
Nonpoint Source Pollution Program
PO Box 200901
Attention: Eric Trum
Helena, MT 59620-0901

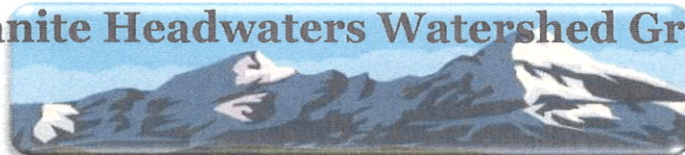
Mr. Trum,

The Montana Natural Resource Damage Program (NRDP) is writing in support of Trout Unlimited's 319 Grant Application for the Flint Creek Riparian Restoration Project on the Corbett-Downs property on Flint Creek. NRDP, through its *Upper Clark Fork Basin Aquatic and Terrestrial Restoration Plans* (Updated February 2019), is committed to the identified dollar match for riparian planting and fencing via money allocated to the improvement of the riparian areas of Flint Creek, and fully supports the incorporation of the project components identified for funding through the 319 program.

Sincerely,

A handwritten signature in blue ink that reads "Beau Downing".

Beau Downing
NRDP Restoration Project Manager

Granite Headwaters Watershed Group

PO Box 926 Philipsburg, MT 59858 406-859-3291 ext. 101

Montana Department of Environmental Quality
319 Nonpoint Source Funding Program
P.O. Box 200901
Helena, MT 59620-0901

The Granite Headwaters Watershed Group, formed in 2006, is a local citizen and stakeholder group concerned with interests of Flint Creek and Upper Rock Creek. The mission of Granite Headwaters is to promote the responsible use of the watershed's natural, human and socio-economic resources to protect and enhance the rural lifestyles valued by our communities. GHWG developed the Watershed Restoration Plan for the Flint Creek watershed, in conjunction with other collaborating entities.

Trout Unlimited is requesting funding necessary to complete active revegetation and streambank restoration activities on Flint Creek, as well as capacity building through public outreach and community education. GHWG has worked with Trout Unlimited in the past, most notably on the investigation and planning efforts at the Rumsey Millsite and floodplain area on Fred Burr Creek, where mercury and other heavy metals have been detected in high concentrations in both soil and surface water.

The financial support for the development and implementation of this planning effort and project will help conserve, develop, and improve riparian and water resources in the Flint Creek watershed, and serve as a potential demonstration project for future efforts in the area. Securing funding for this project is instrumental to the progress in this watershed.

GHWG appreciates this funding opportunity and your ongoing work in the Flint Creek watershed. If you have any questions, please contact our office which is colocated with the Conservation District, (406) 858-3291, or me personally at the number below. Thank you for your consideration to complete these important projects and planning efforts.

Sincerely,



Michael L. Miller, President
Granite Headwaters Watershed Group
(406) 859-3105